



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,685	08/06/2003	Stephen A. Culp	0740800-0101	7145
7590	05/19/2004			EXAMINER NOVOSAD, JENNIFER ELEANORE
David J. Hill Paul S. Weidlich Chambliss, Bahner & Stophel, P.C. 1000 Tallan Building, Two Union Square Chattanooga, TN 37402			ART UNIT 3634	PAPER NUMBER
			DATE MAILED: 05/19/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/634,685	CULP, STEPHEN A.
	Examiner	Art Unit
	Jennifer E. Novosad	3634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06 August 2003.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4,8-11,14 and 18 is/are rejected.
 7) Claim(s) 5-7,12,13,15-17,19 and 20 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 06 August 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 08-06-2003.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "invention" in line 1.

Applicant is reminded of the proper content of an abstract of the disclosure. A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative. *In particular*, it is noted that the abstract appears to be drawn more to the parent application, i.e., 10/192,940, then to the present application.

Specification

The disclosure is objected to because in line 4 of page 1, --6,615,999-- should be inserted for the blank line. Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the features canceled from the claims:

- (a) the structural member having two slots on a first lengthwise side and a slot on the opposite lengthwise side, as in the claimed combination of claim 4;
- (b) the structural member having two slots on a first lengthwise side and a slot on the first widthwise side, as in the claimed combination of claim 5;
- (c) the structural member having two slots on a first lengthwise side and a slot on each of the first and second widthwise sides, as in the claimed combination of claim 6;
- (d) the structural member having two slots on a first lengthwise side, a slot on the opposite lengthwise side, and a slot on each of the first and second widthwise sides, as in the claimed combination of claim 7;
- (e) the structural member having two slots on a first lengthwise side and two slots on the opposite lengthwise side, as in the claimed combination of claim 8;
- (f) the appropriate dimensioning of slots to slots and slots to sides, as in the claimed combination of each of claims 9, 10, 12, 13, 15-17, 19, and 20;
- (g) the structural member having two slots on a first lengthwise side and two slots on a first widthwise side, as in the claimed combination of claim 11;
- (h) the structural member having two slots on a first lengthwise side and two slots on each of the first and second widthwise sides, as in the claimed combination of claim 14; and

(i) the structural member having two slots on a first lengthwise side, two slots on the opposite lengthwise side, and two slots on each of the first and second widthwise sides, as in the claimed combination of claim 18.

It is noted that all additional figures and elements utilized to correct the above-mentioned drawing corrections must be inserted into the specification whereby no new matter should be entered. It is suggested that only language used in the claims be inserted into the specification to ensure that no matter is submitted. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1, 4, 7, 8, 11, 14, and 18 are objected to because of the following informalities:

In line 5 of claim 1, it appears that "side" (before "lengthwise") should be changed to --said--.

In lines 15-16 of claim 1 it is strongly suggested that "a first outside slot is located nearest to the first widthwise side and a second outside slot is located" be changed to --a first one of said at least two slots defines a first outside slot which is located nearest to the first widthwise side and a second one of said at least two slots defines a second outside slot which is located--.

Similarly, it is suggested that the following changes be made:

(a) --whereby a first one of said at least two slots defines a first outside slot and a second one of said at least two slots defines a second outside slot-- be inserted after "member" in line 4

Art Unit: 3634

of claim 8, in view of lines 7 and 8 of the claim and thus "a" before "second lengthwise side" in lines 7 and 8 should be changed to --the--;

(b) --whereby a first one of said at least two slots defines a first outside slot and a second one of said at least two slots defines a second outside slot-- be inserted after "side" in line 3 of claim 11, in view of lines 6 and 7 of the claim and thus "a" before "first widthwise side" in lines 6 and 7 should be changed to --the--;

(c) --whereby a first one of said at least two slots of the first widthwise side defines a first widthwise side first outside slot, a second one of said at least two slots of the first widthwise side defines a first widthwise second outside slot, a first one of said at least two slots of the second widthwise side defines a second widthwise side first outside slot, a second one of said at least two slots of the second widthwise side defines a second widthwise second outside slot, -- be inserted before the ";" in line 3 of claim 14, in view of lines 6-9 of the claim and thus "a" before "first widthwise side" in lines 6 and 7 should be changed to --the-- and "a" before "second widthwise side" in lines 8 and 9 should be changed to --the--; and

(d) --whereby a first one of the at least two slots on the second lengthwise side defines a second lengthwise side first slot, a second one of the at least two slots on the second lengthwise side defines a second lengthwise side second slot, a first one of said at least two slots of the first widthwise side defines a first widthwise side first outside slot, a second one of said at least two slots of the first widthwise side defines a first widthwise second outside slot, a first one of said at least two slots of the second widthwise side defines a second widthwise side first outside slot, a second one of said at least two slots of the second widthwise side defines a second widthwise second outside slot, -- be inserted before the ";" in line 4 of claim 18, in view of lines 5-12 of the

claim and thus "a" before "first lengthwise" in lines 5 and 6, "a" before "second lengthwise" in lines 7 and 8, "a" before "first widthwise side" in lines 9 and 10 should be changed to --the--, and "a" before "second widthwise side" in lines 11 and 12 should be changed to --the--.

In line 2 of claims 4 and 7, it appears that --said-- should be inserted before "at".

In line 3 of claim 7, it is suggested that --along-- be inserted before both occurrences of "the".

In claim 8, it appears that "a" before "first lengthwise side" in lines 5 and 6 should be changed to --said-- in view of line 15 of claim 1. *Similarly*, these changes should be made in lines 4 and 5 of claim 11.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 11, 14, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8, 11, 14, and 18 are rendered indefinite since it is unclear from the language of the recitation "at least one of said structural members includes at least two slots along the first lengthwise side" in line 2 what structure is being set forth and therefore the metes and bounds of the claims cannot be properly ascertained. *In particular*, claim 1, from which each of these claims depends, sets forth (in line 10) the structure specified in the above mentioned recitation.

Thus, it is unclear whether claims 8, 11, 14, and 18 are requiring that two "additional" slots be disposed along the first lengthwise side, i.e., the first lengthwise side would have four slots in these claims or whether these claims are referring back to the structure already set forth in claim 1. *Accordingly*, if applicant is merely referring back to the structure of claim 1, the language of the above mentioned recitation must be changed. It is therefore suggested that "at least two slots along the first lengthwise side" in line 2 be deleted and that --further-- be inserted before "includes" in line 2. *Also*, (a) in claim 8, lines 2-3, "of said structural member and", (b) "and" in line 2 of claim 11, (c) the "," after "side" in line 2 of claims 14 and 18 should be deleted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,812,977 (Glassman '977).

Glassman '977 discloses a system for modular construction comprising a plurality of structural members (12, 12', 14, and 14') whereby each comprises a first lengthwise side, a second opposite lengthwise parallel to the first lengthwise side, a first widthwise side, and a second widthwise side parallel to the first widthwise side; the first lengthwise side having at least two slots (20 and 22) whereby each slot has a pair of generally parallel slot sides, an open end along the first lengthwise side and a slot axis parallel to and disposed equally between the slot

sides; a first one of the slots (20) defines a first outside slot nearest to the first widthwise side and a second one of the slots defines a second outside slot nearest to the second widthwise side; wherein the distance between the slot axis of the first outside slot and the first widthwise side is a predetermined slot-to-side distance and the distance between the slot axis of the second outside slot and the second widthwise side is a whole number multiple, i.e., the distances are equal so the whole number multiple is 1, of the slot-to-side distance and the distance between each of the slot axes of the at least two slots (20 ad 22) is a whole number multiple, i.e., the distances are equal so the whole number multiple is 1, of the slot-to-side distance, whereby the members are connectable slot-to-slot.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,854,724 (Wuorio '724).

Wuorio '724 discloses a system comprising a plurality of structural members (see particularly Figures 3 and 5) whereby each comprises a first lengthwise side, a second opposite lengthwise parallel to the first lengthwise side, a first widthwise side, and a second widthwise side parallel to the first widthwise side; the first lengthwise side having at least two slots (26 or 42) and the second lengthwise side having at least two slots (34A, 34B and 48A, 48C) whereby

Art Unit: 3634

each slot has a pair of generally parallel slot sides, an open end along the respective lengthwise side and a slot axis parallel to and disposed equally between the slot sides; a first one of the slots defines a first outside slot nearest to the first widthwise side and a second one of the slots defines a second outside slot nearest to the second widthwise side; wherein the distance between the slot axis of the first outside slot and the first widthwise side is a predetermined first slot-to-side distance and the distance between the slot axis of the second outside slot and the second widthwise side is a whole number multiple, i.e., the distances are equal so the whole number multiple is 1, of the slot-to-side distance and the distance between each of the slot axes of the at least two slots is a multiple of the slot-to-side distance, whereby the members are connectable slot-to-slot.

The claims differ from Wuorio '724 in requiring the distance between each of the slot axes of the at least two slots on the first and second sides to be a whole number multiple of the slot-to-side distance (see lines 21-23 of claim 1 and lines 19-21 of claim 8).

Although Wuorio '724 does not disclose the exact dimensions of the members including the distance from a slot to a side and the distance between slots, it would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have fabricated the members having dimensions specified in the claims for increased ease in economy, manufacture and assembly.

Allowable Subject Matter

Claims 5; 6; and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

Art Unit: 3634

claim and any intervening claims and claims 11-13; 14-17; and 18-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. It is noted that claims 7, 11, 14, and 8 contain objections, as advanced above.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to show or suggest a system, as called for in claim 1, whereby each member has parallel widthwise and parallel lengthwise sides (see lines 4-9 of claim 1), at least two slots on the first lengthwise sides (see line 10 of claim 1), and one slot on the first widthwise side (as in claim 5), as specifically called for in the claimed combinations of claims 5, 6, 7, 11, 14, and 18. It is noted claims 6, 7, 11, 14, and 18 require a slot on a first widthwise slot, as a minimum and therefore are encompassed by the allowability of claim 5, e.g., claim 6 and require a slot on each widthwise side, claim 14 requires two slots a first widthwise side, and claims 14 and 18 require two slots on each widthwise side.

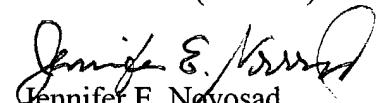
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E. Novosad whose telephone number is (703)-305-2872. The examiner can normally be reached on Monday-Thursday, 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703)-308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer E. Novosad

Primary Examiner

Art Unit 3634

Jennifer E. Novosad/jen

May 13, 2004